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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,714	12/21/2000	Andrew T. Hunt		4539
24948	7590	06/22/2007		
nGimatCo. MICROCOATING TECHNOLOGIES, INC. 5315 PEACHTREE INDUSTRIAL BLVD ATLANTA, GA 30341-2107				
			EXAMINER TUROCY, DAVID P	
			ART UNIT 1762	PAPER NUMBER
			MAIL DATE 06/22/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/748,714	HUNT ET AL.	
	Examiner	Art Unit	
	David Turocy	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-33 and 99-104 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6-33, 99 and 100 is/are allowed.
- 6) ☒ Claim(s) 101-104 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/14/07 has been entered.

Response to Amendment

2. The applicant's amendments, filed 3/14/07, have been fully considered and reviewed by the examiner. The examiner notes the amendment to the claims to require that the energy source being chemically derived. The examiner notes the addition of new claims 101-104. Claims 1-4, 6-33, and 99-104 are pending in the instant application.

The examiner notes the declaration, filed concurrently with the amendment, wherein the amendment, including the predominant energy source being chemically derived as being fully supported and clear within the specification. In response, the examiner agrees, the specification clearly discloses combustion utilizing a flame and fuel and therefore one of ordinary skill in the art viewing the specification would appreciate that the predominate energy source in the process is chemically derived, i.e. a chemical reaction or chemical reactions, particularly oxidation in a combustion flame.

Response to Arguments

3. Applicant's arguments with respect to claims have been considered but are moot in view of the amendment to the claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 101-104 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5084126 by McKee in view of US Patent 4689112 by Bersin.

Art Unit: 1762

McKee teaches a method of distributing and directing the plasma gases uniformly along the substrate surface and discloses of a method of forming a coating on a substrate comprising activating a precursor material by feeding the material into a localized environment having an energy source (Figures, Column 2, lines 50-60, Column 4, lines 14-36). McKee discloses directing the material along a first path and providing additional gas flow to the first path to redirect the material into a different path, thereby causing the material to contact the substrate (Figures, Column 2, lines 50-60, Column 4, lines 14-36). McKee discloses providing a first gas path that is orthogonal to the substrate surface and therefore fails to disclose a parallel or oblique nozzle.

However, Bersin discloses a similar method of uniformly distributing a plasma gas, discloses a method comprising activating a precursor material by feeding the material into a localized environment having an energy source, feeding a precursor material along a first path parallel to the substrate surface and applying an energy source to cause combustion products and subsequently providing a redirecting gas flow to therefore redirect the products toward the substrate surface (figures, column 8, lines 12-42). Therefore Bersin clearly discloses using a parallel nozzle with a redirect gas is known and suitable in the plasma processing art to provide a uniform distribution of plasma and therefore provide uniform substrate processing. Therefore it would have been obvious to one of ordinary skill in the art to have modified McKee with the nozzle and redirect gas arrangement as taught by Bersin with a reasonable expectation of successfully providing a uniform distribution of gases over the substrate. The selection of something based on its known suitability for its intended use has been held to support

a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

As addressed in the office action dated 1/25/2007, McKee teaches plasma, which can be considered combustion.

McKee in view of Bersin teaches all the limitations of these claims as discussed above, but does not explicitly disclose the claimed coating thickness, however, because McKee discloses plasma deposition during semiconductor and the process is clearly capable of providing coating thicknesses as desired the a particular application and it would have been obvious to have produced coatings in the claimed range based upon a desired application to render the coating useful, especially absent evidence showing a criticality of producing coating thicknesses in the claimed range.

Allowable Subject Matter

7. Claims 1-4, 6-33, 99 and 100 are allowed.
8. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art cited or reviewed by the examiner cites or reasonably suggests alone or in combination provide an energy source that is chemically derived, wherein the energy source the predominate energy source in combination with the other process limitations. The closest prior art cited or reviewed by the examiner disclose Rf plasma process, however, as discussed in the applicants response, such Rf power is not chemically derived energy and therefore cannot reasonably read on the claim as written.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Turocy whose telephone number is (571) 272-2940. The examiner can normally be reached on Monday-Friday 8:30-6:00, No 2nd Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David Turocy/
AU 1762


FRED O. PARKER
PRIMARY EXAMINER